Friedrich-Christian Rosenthal - Biographical Note

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Summary. A short biographical note about Friedrich-Christian Rosenthal, a German anatomist, disciple of Reil, born in Greifswald on the 3rd of June 1780, died prematurely in the same town on the 5th of December 1829, leaving unfinished an important work on the anatomy of the brain and cranial nerves. His name is still associated with the spiral canal of the inner ear and to the basal cerebral vein.

Key words: Basal vein.

Friedrich-Christian Rosenthal was born on the 3rd of June 1780, the youngest of the five children of a shopkeeper living in Greifswald, a town on the Baltic coast. His father, Johann-Christian, had come from Halberstadt and had been the clerk of a spicemerchant whose youngest daughter he married and later became his successor. The two eldest brothers of Friedrich-Christian became shopkeepers as their father.

At the beginning of the 19th century the Rosen- thals, who had become a notable family since the father assumed municipal functions, were confronted with several misfortunes. In 1806, the eldest son, a bachelor, died of tuberculosis at the age of 36 and a year later the father was carried off by typhus. In 1808 Friedrich-Christian’s mother died of tuberculosis. His second brother, who had taken over his father’s shop and the municipal charges in Greifswald, also died of tuberculosis in 1846. The destiny of this family may be surprising, but we should remember that this was the fate of many urban families at a time when tuberculosis was a real plague.

Friedrich-Christian Rosenthal attended school in Greifswald and in November 1797 entered the university together with about twelve other students. There Karl Asmund Rudolphi\(^1\) taught the basic knowledge of Anatomy. A durable friendship developed between the professor and the student.

Rudolphi was interested especially in anatomy, zoology and the comparative anatomy of the hel- minths. Indeed, his name is still known in connection with this branch of zoology.

\(^1\) Karl Asmund Rudolphi, 1771–1832, Professor of Medicine at Greifswald, later Director of the Anatomical Institute, Berlin.

Fig. 1. Friedrich-Christian Rosenthal (1780–1829)
One can feel the influence of Rudolphi in a great number of Rosenthal's works.

In 1801 Rosenthal left Greisfrald for Jena, and on the 29th of November 1802 he presented his thesis "De organo olfactus quorundam animalium", dedicated to his master and friend, Rudolphi. In this work he dealt with the comparative anatomy of the skeleton and of the soft tissues of the face. Later on, Rosenthal went to Wurtzburg where Siebold was the master of a well known surgical school and where Hesselbach also taught.

Hesselbach, known for his work on the surgical pathology of inguinal hernia, taught Rosenthal surgical anatomy. After a short stay, six months later, Rosenthal, now 22 years old, went on to Vienna where he took up ophthalmology and obstetrics and attended the lectures of J. P. Frank, famous for his work on Hygiene. Rosenthal then left Vienna, and, after a short journey through Germany, returned to Greisfrald where he settled as a physician. Was it out of necessity or the mere desire to settle down after such a long period of study? Views vary on this point.

Then, he resumed his relations with Rudolphi and hence with the university of his birth place. He soon organized a specialized course and in 1807 became known with the publication of his paper "Disquisitionis anatomiaca de organo olfactus quorundam animalium" and received the university degree of Privat Dozent for Anatomy.

In 1810 the new University of Berlin was created and Rosenthal gave up his practice in Greisfrald to follow his master Rudolphi there. They had both been called by J. C. Reil who was one of the most cultured physicians of that time, a shrewd observer, a philosopher, a disciple of Kant, a skilful surgeon and an eminent doctor. He had thought of dissolving the neurilemma in order to denude the nerve fibres. He was a disciple of the naturalistic philosophy and, in 1795, published a thesis "on the vital force". He died at the age of 55, on the 22nd of November 1813, during a typhus epidemic.

On Rudolphi's proposal Rosenthal was appointed prosector at the University of Berlin in 1812. At that time he was working on his ichthyotomic plates which led to his international reputation. Engraved with remarkable care and accuracy, these plates were dedicated to von Schuckmann, a personal friend and patron of Rosenthal.

In 1813 the people stated to revolt against the Napoleonic oppression. Rosenthal gave up his university position to become an Army Medical Officer in the Province of Neumark. When he returned in 1814, Reil had died but Rosenthal resumed his position as a prosector at the Royal Museum of Anatomy in Berlin. A year later, at the age of 33, he was nominated to the post of Anatomy Professor. At that time he published his first work about the structure of the brain in which he referred to the latest studies of his master Reil and reported the differences between cortical and subcortical structures. In 1818, Rosenthal went to Breslau for a short time replacing Professor Otto who was absent on a study journey. He returned to Greisfrald in 1819 and in 1820 he was nominated to be Professor of Physiology and Anatomy and also Director of the Museum of Zoology. He spent the following years on the study of important work so that one of his contemporaries could say; "Rosenthal works with indefatigable eagerness and great courage, courage and eagerness which are unhappily not without effect on his health". He published works about anatomy, physiology and surgery. His prosectors where Berndt (who became Professor of Anatomy at Breslau in 1826), then Laurer who helped him with his last works and finally succeeded him. In 1823, Rosenthal published a paper about the cochlea of the inner ear in the human and in 1824 another paper about the deep cerebral venous system. Thus, his name is connected to the spiral canal of the inner ear and to the basal vein.

But he did not give up his interest in Zoology. He is said to have found a whale aground on the beach in 1825, and to have organized its transportation and later to have preserved it in his Institute of Anatomy where the specimens were kept in big barrels for more than 31 years. The skeleton of the animal is still in the Zoological Museum of the University.

During the last years before his death, Rosenthal worked without respite, with the assistance of his prosector Laurer, in an attempt to achieve his main work, on the anatomy and physiology of the brain and cranial nerves. This was elaborated according to the ideas of his master Reil.

In a letter to Berndt, Sprengel says: "I am afraid that Rosenthal is going silently and hopelessly towards

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2 Carl Caspar von Siebold (1736-1808) Professor of Anatomy, Surgery and Obstetrics in Wurtzburg.
3 Franz Caspar Hesselbach (1759-1816) Professor of Surgery in Wurtzburg.
4 Johann Peter Frank (1745-1821). Of French stock by his grandfather, he became the director of the General Hospital in Vienna. He is best known for his work on hygiene and public health, also emphasized the importance of diseases of the spinal cord (1792) and defined diabetes insipidus in 1794.
5 Johann-Christian Reil (1759-1813) anatomist and physiologist, and Professor of Medecine in Berlin.
6 Adolf Wilhelm Otto (1786-1845) Anatomist, born in Greisfrald, Professor of Anatomy in Breslau.
7 Friedrich Berndt (1793-1854) Professor of Obstetrics in Greisfrald.
8 Wilhelm Sprengel (1792-1828) Professor of Surgery in Greisfrald.